<u>IN THE SPECIFICATION</u>

Please substitute paragraphs 0017, 0019, 0021, 0026, 0056, 0057, 0066, 0070, and 0072 with the following replacement paragraphs:

[0017] In an exemplary embodiment, the system, including the components shown in FIG. 1, may be configured as a data processing system that includes a processor for processing digital data, one or more memory coupled to the processor for storing digital data, means, coupled to the one or more memory, for inputting digital data, and a display 101 coupled to the processor and memory for displaying information derived from digital data processed by the processor. In one embodiment, an interface device 120 may be configured as an application program, may be stored in memory, and may be accessible by the processor for directing processing of digital data by the processor and the presentation of information via the display 101. In another embodiment, interface device may include a processor and a memory which stores an application program, wherein the application program may be accessible by the processor for directing processing of digital data by the processor. The interface device 120, databases 107, 108, display 101, broadcast device 160, or any other hardware or software of the present invention may be incorporated into an integrated circuit card, personal digital assistant, single computer, more than one computer with suitable interfaces or other similar devices. As those skilled in the art will appreciate, each computer may include an operating system (e.g., ~~Microsoft~~ MICROSOFT ~~Windows~~ WINDOWS NT®, ~~Windows~~ WINDOWS 95, ~~Windows~~ WINDOWS 98, ~~Windows~~ WINDOWS 2000, ~~Linux~~ LINUX®, ~~Solaris~~ SOLARIS®, etc.) as well as various conventional support software and drivers typically associated with

computers. The computers can be in a home or business environment with access to a network. In an exemplary embodiment, interface device 120 may be local hardware and/or software which may receive data from external sources or interface device 120 may be hardware and/or software remote from the consumer, but the interface device 120 may receive information from the consumer through any communication device or method discussed herein, including, for example, the Internet through a commercially-available web-browser software package.

[0019] In accordance with a preferred embodiment, the system 100 includes a first database 107 that may include identification, demographic, restriction, preference, shipping data, identity verification, authentication data and/or any other information relating to the consumer 110. In addition, a second database 108 includes payment information, (e.g., financial account information, loyalty information, etc) describing how the consumer 110 may wish to pay for transactions in accordance with the acceptance of one or more offer. The two databases 107, 108 can, of course, be combined as a single database or multiple databases including all of the above information. The databases, as used herein, may be incorporated into a smart card and/or the databases may also include external databases wherein similar or additional information may be acquired. Moreover, the databases discussed herein may be any type of database, such as relational, hierarchical, object-oriented, and/or the like. Common database products that may be used to implement the databases include DB2® by IBM (White Plains, N.Y.), any of the database products available from Oracle Corporation (Redwood Shores, Calif.),

~~Microsoft Access~~ MICROSOFT ACCESS or MSSQL by Microsoft Corporation (Redmond, Wash.), or any other database product. The database may be organized in any suitable manner, including as data tables or lookup tables. Association of certain data may be accomplished through any data association technique known and practiced in the art. For example, the association may be accomplished either manually or automatically. Automatic association techniques may include, for example, a database search, a database merge, GREP, AGREP, SQL, and/or the like. The association step may be accomplished by a database merge function, for example, using a "key field" in each of the manufacturer and retailer data tables. A "key field" partitions the database according to the high-level class of objects defined by the key field. For example, a certain class may be designated as a key field in both the first data table and the second data table, and the two data tables may then be merged on the basis of the class data in the key field. In this embodiment, the data corresponding to the key field in each of the merged data tables is preferably the same. However, data tables having similar, though not identical, data in the key fields may also be merged by using AGREP, for example.

[0021] The presentation of advertisements and/or offers and the facilitation of communication between the merchant 130 and the consumer 110 may necessitate additional communication among various third party institutions such as financial institutions and other providers of goods or services, e.g., shippers, payment escrow companies, and the like. The computers of the various parties may be interconnected via a second network, referred to as a transaction network. The transaction network

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represents existing proprietary networks that presently accommodate electronic communications and transactions. The transaction network may be a closed network that is assumed to be secure from eavesdroppers. Examples of the transaction network include the ~~American Express®~~ AMERICAN EXPRESS, ~~VisaNet®~~ VISANET and the ~~Veriphone®~~ VERIPHONE network.

[0026] The computers discussed herein may provide a suitable website or other Internet-based graphical consumer interface which is accessible by consumers. In one embodiment, the Internet Information Server, ~~Microsoft~~ MICROSOFT Transaction Server, and ~~Microsoft~~ MICROSOFT SQL Server, are used in conjunction with the ~~Microsoft~~ MICROSOFT operating system, ~~Microsoft~~ MICROSOFT NT web server software, a ~~Microsoft~~ MICROSOFT SQL database system, and a ~~Microsoft~~ MICROSOFT Commerce Server. Additionally, components such as ~~Access~~ ACCESS or SQL ~~Server~~ SERVER, ~~Oracle~~ ORACLE, ~~Sybase~~ SYBASE, ~~Informix MySQL~~ INFORMIX MYSQL, ~~Intervase~~ INTERBASE, etc., may be used to provide an ADO-compliant database management system. The term "webpage" as it is used herein is not meant to limit the type of documents and applications that might be used to interact with the consumer. For example, a typical website might include, in addition to standard HTML documents, various forms, ~~Java~~ JAVA applets, ~~Javascript~~ JAVASCRIPT, active server pages (ASP), common gateway interface scripts (CGI), extensible markup language (XML), dynamic HTML, cascading style sheets (CSS), helper applications, plug-ins, and the like.

[0056] The interface device 120 may then transmit the amended acceptance 132 (e.g., including loyalty point value) to the merchant 130 (step 250). Prior to transmitting the amended acceptance 132 to the merchant, the system and method may also include authenticating or authorizing the transaction. One skilled in the art will appreciate that the authentication or authorization steps discussed herein may be implemented during any suitable portion of the method discussed herein. In an exemplary embodiment of the invention, a consumer is provided with a smart card having a standardized protocol to make credit and debit transactions, such as, for example, the ~~Blue™~~ BLUE from ~~American Express™~~ AMERICAN EXPRESS smart card or the Europay ~~MasterCard™~~ MASTERCARD ~~Visa™~~ VISA (EMV) smart card. The consumer utilizes the EMV Smartcard to interface with a wallet server to authenticate the consumer with a merchant server on a network through communications with a security server provided by a financial institution or credit provider such as, for example, ~~American Express™~~ AMERICAN EXPRESS. The consumer conducts a virtual purchase transaction using interface device 120 but via the internet through a wallet server interacting with the security server to provide enhanced reliability and confidence in the transaction.

[0057] The consumer logs onto the internet via a browser and selects a wallet, causing the establishment of a secure sockets layer link to the wallet server and, at about the same time, activates the consumer window. The wallet server requests the consumer to insert

the smartcard for authentication to the server wallet account. With an encrypted identity

certificate being set, the consumer then selects the credit provider/financial institution,

such as ~~American Express~~ AMERICAN EXPRESS, who will be providing guarantee of

the payment, from the provider available in the wallet. The consumer then logs onto the

merchant server, completes shopping, goes to the checkout screen and selects secure

checkout. Again, the interfaces may be over a secure sockets layer. Next, the wallet

server completes the form and transmits it to the merchant server, which uses an interface

to a third party processor or directly to the security processor of the credit provider. The

credit provider security processor uses the wallet interface to the consumer card to access

smartcard functionality and generates a signed transaction. Alternatively, the connection

can also be used to securely update functionality as required. The transaction card

security processor authorizes the transaction on a "card present" basis. The merchant

server then integrates the authorization with the wallet server completed form received

from the wallet server and successfully completes the transaction, informing the

consumer that the transaction has been successfully completed. For further information

related to authenticating the transaction, see for example U.S. Ser. No. 09/754,465 filed

on Jan. 4, 2001 and entitled SMARTCARD INTERNET AUTHORIZATION SYSTEM,

which is hereby incorporated by reference.

[0066] While the network primarily discussed herein relates to an interactive television

(ITV) network, it will be appreciated that many applications of the present invention

could be formulated. One skilled in the art will appreciate that the network may include

any system for exchanging data or transacting business, such as web broadcasts, the Internet, an intranet, an extranet, WAN, LAN, satellite communications, and/or the like. The consumers may interact with the system via any input device such as a keyboard, mouse, kiosk, personal digital assistant, handheld computer (e.g., ~~Palm Pilot®~~ PALM PILOT), cellular phone, integrated circuit card and/or the like. Similarly, the invention could be used in conjunction with any type of personal computer, network computer, workstation, minicomputer, mainframe, or the like running any operating system such as any version of ~~Windows~~ WINDOWS, ~~Windows~~ WINDOWS NT, ~~Windows~~ WINDOWS2000, ~~Windows~~ WINDOWS 98, ~~Windows~~ WINDOWS 95, ~~MacOS~~ MAC OS, OS/2, ~~BeOS~~ BEOS, ~~Linux~~ LINUX, UNIX, ~~Solaris~~ SOLARIS or the like. Moreover, although the invention is frequently described herein as being implemented with TCP/IP communications protocols, it will be readily understood that the invention could also be implemented using IPX, ~~Appletalk~~ APPLETALK, IP-6, NetBIOS, OSI or any number of existing or future protocols. Moreover, the system contemplates the use, sale or distribution of any goods, services or information over any network having similar functionality described herein.

[0070] The software elements of the present invention may be implemented with any programming or scripting language such as C, C++, ~~Java~~ JAVA, COBOL, assembler, PERL, ~~Visual Basic~~ VISUAL BASIC, SQL Stored Procedures, extensible markup language (XML), with the various algorithms being implemented with any combination of data structures, objects, processes, routines or other programming elements. These

computer program instructions may also be stored in a computer-readable memory that can direct a computer or other programmable data processing apparatus to function in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture including instruction means which implement the function specified in the flowchart block or blocks. The computer program instructions may also be loaded onto a computer or other programmable data processing apparatus to cause a series of operational steps to be performed on the computer or other programmable apparatus to produce a computer-implemented process such that the instructions which execute on the computer or other programmable apparatus provide steps for implementing the functions specified in the flowchart block or blocks.

[0072] Further, it should be noted that the present invention may employ any number of conventional techniques for data transmission, signaling, data processing, network control, and the like. Still further, the invention could be used to detect or prevent security issues with a consumer-side scripting language, such as ~~JavaScript~~ JAVASCRIPT, VBScript or the like. For a basic introduction of cryptography and network security, the following may be helpful references: (1) "Applied Cryptography: Protocols, Algorithms, And Source Code In C," by Bruce Schneier, published by John Wiley & Sons (second edition, 1996); (2) "Java Cryptography" by Jonathan Knudson, published by O'Reilly & Associates (1998); (3) "Cryptography & Network Security: Principles & Practice" by William Stalling, published by Prentice Hall; all of which are hereby incorporated by reference.